November-12-12 3:30:54 PM

Quality Control

Page 1

Item ID: 649.4816 Accept *N900040100* Setup Start **Revision ID:** Item Name: Doubler **Start Date:** 12/11/2012 **Start Qty: 10.00 Cust Item ID: Required Date:** 03/12/2012 Req'd Qty: 10.00 **Customer:** Reference: Run Start Process Plan: MLJ Date: 12-11-13 Tooling: Approvals: Date: SPC (Y/N): Date: Sequence ID/ **Operation** Set Up/ Tool ID Tool # Plan Reject Accept Reject Insp. Work Center ID Description **Run Hours** Qty Code Qty Number Stamp **Draw Nbr Revision Nbr** 649.4800 Α 110 0.00 *110* Waterjet 0.00 Memo FLOW CNC Waterjet 1-Cut as per Dwg Dwg Rev: つかいれらの Prog Rev:_ 2-Deburr if necessary 120 QC2- Inspect parts off machine FAI/FAIB 0.00 *120* B12-12-16 0.00 Memo

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA:	Date:	•	*
	•		

									QA Closed:	Date:	7	
Work Orde	or·				DISPOSITION			AGAINST DE	PARTMENT,	/PROCESS		
Part No. Scotter NCR No. Work Order Upd						Theri	Skid-tube Crosstube Water Jet Enginee Machining Small Fab Prod. Eng. Coor. Thermoforming Finishing Rec/Store/Packaging Composite Supplier					
Root				Descri	iption of work order update	Initial	Initial Action Sign &					
Cause	Date	Step	Qty		or Non-conformance	Chief Eng	Desc	ription:	Date	Verification	QC Inspector	
Doc/Data		1		, ,								
Equip/Tooling												
Operator												
Material												
Setup												
Other						į						
Process												
Supplier												
Training					•	•						
Unapproved						<u> </u>			l			
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Landir	ng Gear				General				1	 	-	
	Bending				Bend	Grain		<u> </u>	Ovalized	_	Pressure/Forced	
		lot Concer	ntric to (o/s	BOM/Route	Hardw		<u> </u>	Over/Under	⊢	Temperature/Cure	
	Cracks	4 1			Broken/Damaged		ion Incomplete	,,	Part Incorre	· ·	Weld	
	Crushed/Crimped Burrs					$oldsymbol{oldsymbol{eta}}$	tions Incomplete/	'Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled	
}	Cuffs Contamination					enance	-	Part Moved	Maria -			
ļ	Heat Tre		T., b -	<u> </u> -	Countersink	Mislab		 	Positioned V		Other	
}		on Strip in	rube	\vdash	Cut Too Short Drill Holes	Misrea Offset	u		Power Loss/	ourge	Other	
}	Ripples	n Bend Naves in E	Vtrucio:	, ⊢	Drawing	${f H}$	Calibration		-			
		waves in E Sequence		' 	Finish	Out of Calibration Out of Sequence						
		wist in Tub		<u> </u>	Folio		e Dimensions			_		

Packaging

Page 2

November-12-12 3:30:54 PM Item ID: 649.4816 Accept *N900040100* Setup Start **Revision ID:** Item Name: Doubler Start Date: 12/11/2012 **Start Qty: 10.00** *10* **Cust Item ID: Required Date:** 03/12/2012 Req'd Qty: 10.00 **Customer:** Reference: Run Start Approvals: Process Plan: Date: **Tooling:** Date: Stop QC: Date: SPC (Y/N): Date: Sequence ID/ Operation Tool ID Reject Set Up/ Tool # Plan Accept Reject Insp. Work Center ID Description Otv Run Hours Code Qty Number Stamp 130 QC8- Inspect parts - second check *130* OC Memo Quality Control 160 Outsource process-Anodize per QSI017 4.1.10.1 0.00 *160* 8_R13-01-15 Outsource4 0.00 Memo Outsource process - Anodize HARD ANODIZE, COLOR BLACK AS PER DWG.(SEE NOTE 2) 170 Receive & Inspect for Damage & Mat'l Certs 0.00 *170* Packaging 0.00 Memo

NCR:	Yes	No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA Date 3 15/25	* ·	
7-1-		

10									QA Closed:	(Date:	(35)22		
Work Orde	er: 9	293	3		DISPOSITION		AGAINST DEPARTMENT/PROCESS						
Part No. 649.4816 NCR No. 13-21042					Rework Scrap X Machining Use-as-is Work Order Update Skid-tube Crosstube Machining Thermoforming Finishing Large Fab Composite			Small Fab Finishing	Water Jet Engineering Prod. Eng. Coor. Quality Rec/Store/Packaging Supplier				
Root				Descri	ption of work order update	Initial	Ac	ction	Sign &				
Cause	Date	Step	Qty		or Non-conformance	Chief Eng	Desc	cription	Date	Verification	QC Inspector		
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved	X 31.14	均(30	1/2	Found Parts consin	when acio cleanny that these were on aby x2 Pats.	05264Z (3/1/4	SCRAP +	Desty Wo Rephe.	785 13.14	16 18/114	OAS 16 9-59 QSZ042 13/01/04		
	<u> </u>				F	AULT CATE	GORY	У	I				
Landii	ng Gear				General								
	Cracks	Bending Centre Not Concentric to O/S Bend BOM/Route				Inspect	Grain Hardware Inspection Incomplete Instructions Incomplete/Unclear			Ovalized Pressure/Forced Over/Under tolerance Temperature/Cure Part Incorrect Weld Part Lost/Missing Wrong Stock Pulled			
	Cuffs Contamin				Contamination	$\boldsymbol{\vdash}$	enance		Part Moved				
	Heat Treat Countersink				Countersink Cut Too Short	Mislabe Misrea		-	Positioned V Power Loss/		Other		
					Drill Holes	Offset	u ,	<u> </u>	-	· . —	Cuttal + Misses		
	Torque Waves in Extrusion Drawing					Offset Out of Calibration R.C. Not see boding Cutta's to inspection				CUTTLY & IN11275			
Ì	Turning Sequence Finish						Out of Sequence						
	Wave/Twist in Tube Folio					\vdash	e Dimensions						

92933

November-12-12 3:30:54 PM

Quality Control

Item ID: 649.4816 Accept *N900040100* Setup Start **Revision ID:** Item Name: Doubler **Start Date:** 12/11/2012 Start Qty: 10.00 *10* **Cust Item ID: Required Date:** 03/12/2012 Req'd Qty: 10.00 **Customer:** Reference: Run Process Plan: Approvals: Date: ____ Tooling: Date: Date: SPC (Y/N): Date: Sequence ID/ Operation Set Up/ Tool ID Tool # Plan Reject Accept Reject **Work Center ID** Description Run Hours Qty Code Number Qty Stamp 180 QC5- Inspect part completeness to step on W/O *180* QC Memo Quality Control 190 0.00 *190* SprayPaint 0.00 Memo Spray Painting PRIME IAW MIL-P-23377J TYPE1 CLASS N AS PER DWG. (SEE NOTE 2) PRIMER BATCH: \25452 200 QC14- Inspect Spray Paint 0.00 0.00 Memo

NCR:	Yes /	No	WORK ORDER NON-CONFORMANCE / UPDATE
			•

DQA:	Date:	•

										QA Closed:	Date	: `		
Work Order					DISPOSITION		AGAINST DEPARTMENT/PROCESS							
Part No					Rework Scrap Use-as-is Work Order Update] 	Skid-tube Crosstube Machining Small Fab Thermoforming Finishing Large Fab Composite			Pro Rec/Sto	Engineering Quality Other			
Root	Description of work order update						al	Ac	tion	Sign &				
Cause	Date	Step	Qty		or Non-conformance	Chief	Eng	Desc	ription	Date	Verification	QC Inspector		
Doc/Data Equip/Tooling Operator														
Material		:				1								
Setup														
Other		l	:		1									
Process														
Supplier														
Training														
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Landing	g Gear				General					7				
_	Bending				Bend	Gra				Ovalized		Pressure/Forced		
L	Centre No	ot Concer	ntric to (o/s	BOM/Route		dwar		,	Over/Under	 -	Temperature/Cure		
_	Cracks			_	Broken/Damaged			on Incomplete	_	Part Incorre	<u> </u>	Weld		
	Crushed/Crimped. Burrs					\vdash		ons Incomplete/	Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled		
,	Cuffs					-		nance	ļ	Part Moved		•		
` 	Heat Trea			<u> </u>	Countersink	\mathbf{H}	slabel		ļ	Positioned V	_	¬		
-	Inspection		Tube	_	Cut Too Short	Misread Power Loss/Surge					Surge	Other		
	Ripples in			-	Drill Holes	Off					-			
-	Torque W			1 <u> </u>	Drawing	-		alibration						
<u> </u>	Turning S				Finish	\vdash		equence						
1	Wave/Twist in Tube Folio					Out	tside	Dimensions						

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92933

Page 4

Item ID: Revision ID: Item Name:	649.4816 Doubler		A	Accept	*N900040	100* se	etup Start Stop	*NS1* *NS2*
Start Date: Required Date Reference:	12/11/2012 : 03/12/2012	Start Qty: 10.00 Req'd Qty: 10.00	*10* *10*		Cust Item ID: Customer:			
Approvals:	Process Pla QC:	n:	Date:	Tooling: SPC (Y/N):	Date:	Rı	un Start Stop	*NR1* *NR2*
Sequence ID/ Work Center I 210 *210* Packaging Packaging	D	Memo	ck Location St 139 E Y AS PER APICAL MPP-1	Set Up/ Run Hours 0.00 0.00 20 BY STAMPING P#	250g	Plan Accept Code Qty		Reject Insp. Number Stamp
220 **?? QC Ouality Control		QC21- Final Inspection - \frac{1}{2}	Work Order Release	0.00]	3/5/0	4

MARIN

								DQA:	Date:	
NCR: Ye	es / No			WORK ORDER NON-	CONFORI	MANCE / UF		QA Closed:	Date:	
Work Order	ŗ.			DISPOSITION			AGAINST DE	PARTMENT	/PROCESS	
Work Order	•			Rework	7	Skid-tube Crosstube		Water Jet		Engineering
Part No	0.			Scrap Use-as-is	Scrap Machining Small Fab			Prod. Eng. Coor. Rec/Store/Packaging		Quality Other
NCR No	0			Work Order Update						
Root				Description of work order update	Initial	A	ction	Sign &		
Cause	Date	Step	Qty	or Non-conformance	Chief Eng	Des	cription	Date	Verification	QC Inspector
Doc/Data										
Equip/Tooling										
Operator		1								
Material		1								
Setup			l .		,				ļ	
Other										
Process				, ,				-		
Supplier										
Training										
Jnapproved										
	•			F	AULT CATE	GORY				

Landing Gear General Ovalized Pressure/Forced Bend Grain Bending BOM/Route Over/Under tolerance Centre Not Concentric to O/S Temperature/Cure Hardware Broken/Damaged Cracks Inspection Incomplete Part Incorrect Weld Crushed/Crimped. Instructions Incomplete/Unclear Part Lost/Missing Wrong Stock Pulled Burrs Cuffs Maintenance Part Moved Contamination Heat Treat Countersink Mislabeled Positioned Wrong Inspection Strip in Tube Cut Too Short Misread Power Loss/Surge Other Ripples in Bend Drill Holes Offset Torque Waves in Extrusion Drawing Out of Calibration Turning Sequence Finish Out of Sequence Wave/Twist in Tube Folio Outside Dimensions

Picklist Print

November-12-12 3:30:57 PM

Work Order ID: 92933

649.4816

Parent Item Name: Doubler

92933

649 4816

Start Date: 12/11/2012

Required Date: 03/12/2012

Start Qty: 10.00

Required Qty: 10.00

Comments:

Parent Item:

IPP REV:A 12.11.01 NEW ISSUE DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ ⁻ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	- Qty Issued	Date Issued	Status
M2024T3S.050		Purchased	No			110	sf	171.1984	0.762	8.021053	-		· · · · · · · · · · · · · · · · · · ·
M2024T3	S 050							.,,,,,,,,	**	0.021033		的12-	12-16

2024-T3 .050 sheet

Location	Loc Oty	Loc Code	B
MAT022	171.1984204		((0)
117684	11.8		
121216	45.6484204		
121889	113.75		121889

Page 1

				DQA:
NCR:	Yes /	No	WORK ORDER NON-CONFORMANCE / UPDATE	

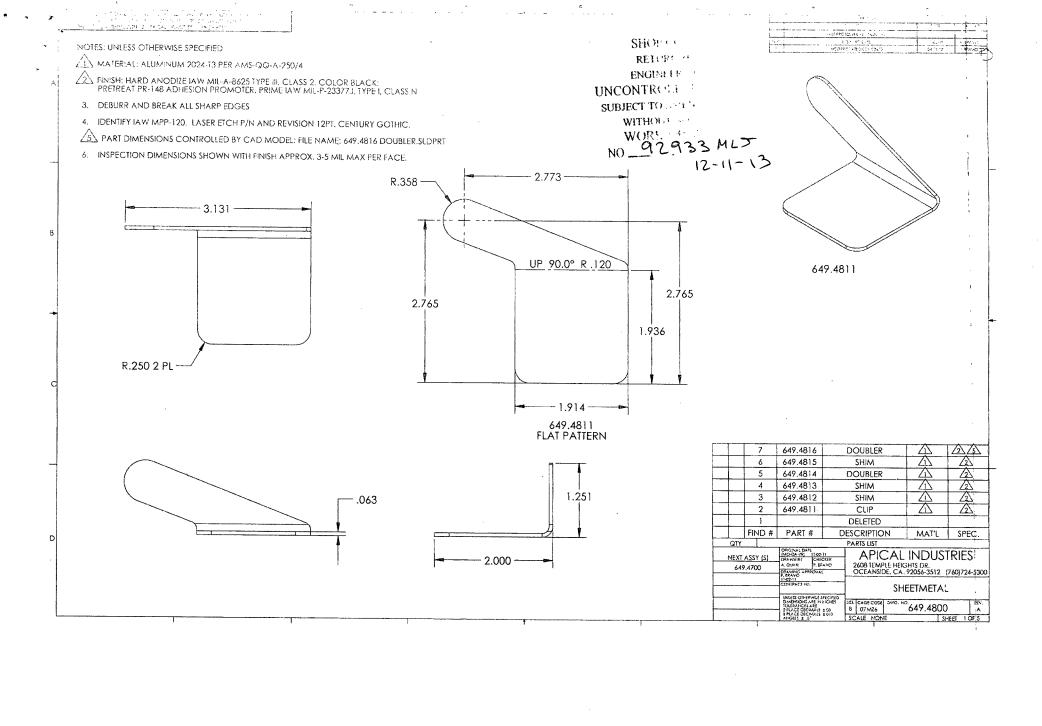
NCR: Yes / No WORK ORDER NON-CONFORMANCE / UPDATE												
										QA Closed:	Da	ite:
Work Order:			DISPOSITION		AGAINST DEPARTMENT/PROCESS							
Part N	0.				Rework Scrap	⊢ ⊢ I			Crosstube Small Fab	Water Jet Engineering Prod. Eng. Coor. Quality		
NCR N	0				Use-as-is Work Order Update	_	· · · · · · · · · · · · · · · · · · ·		Finishing Composite			
Root				Descr	iption of work order update		Initial	Act	ion	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Ch	nief Eng	Descr	ription	Date	Verificatio	n QC Inspector
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Other	_			,								
rocess	_											
raining												
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Landin	g Gear				General							
. [Bending				Bend		Grain			Ovalized		Pressure/Forced
Ī	Centre Not Concentric to O/S		BOM/Route	Hardwa		vare		Over/Under tolerance		Temperature/Cure		
Ī	Cracks		Broken/Damaged	Inspectio		tion Incomplete		Part Incorrect		Weld		
	Crushed/Crimped.		Burrs	Instructions		ions Incomplete/Unclear		Part Lost/Missing		Wrong Stock Pulled		
	Cuffs		Contamination	Mainte		ntenance		Part Moved				
	Heat Treat		Countersink		Mislabeled			Positioned Wrong				
	Inspection Strip in Tube		Cut Too Short		Misread			Power Loss/	Surge	Other		
[Ripples in	Bend			Drill Holes		Offset					
	Torque W	aves in E	extrusion	ո 📙	Drawing		Out of C	Calibration				
Turning Sequence		Finish		Out of Sequence								

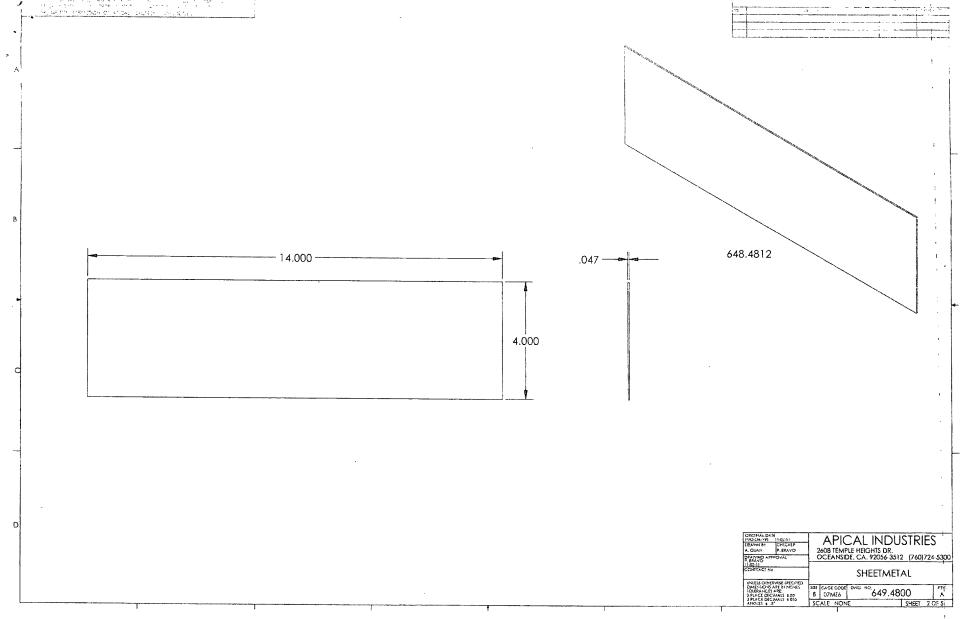
Outside Dimensions

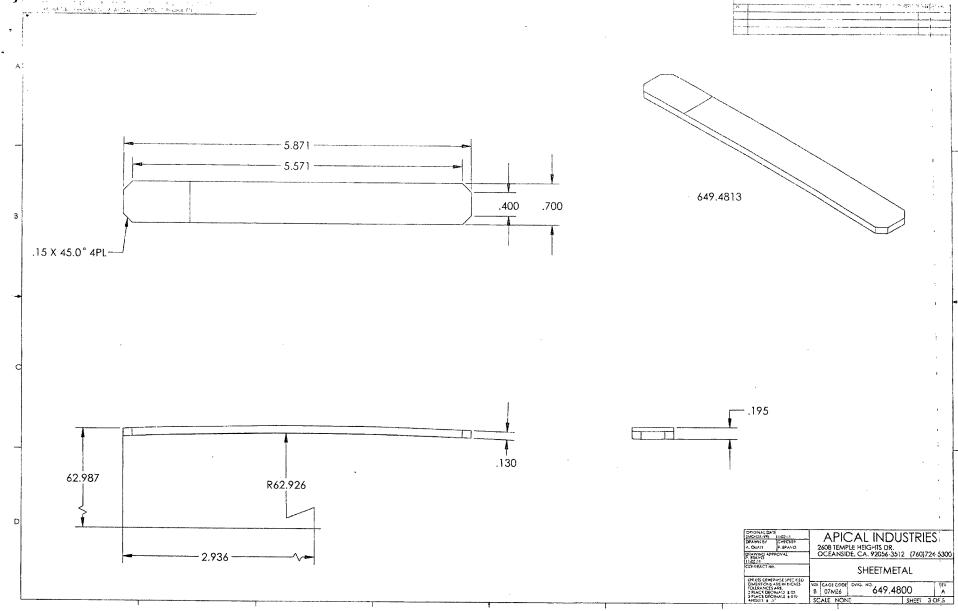
Date:

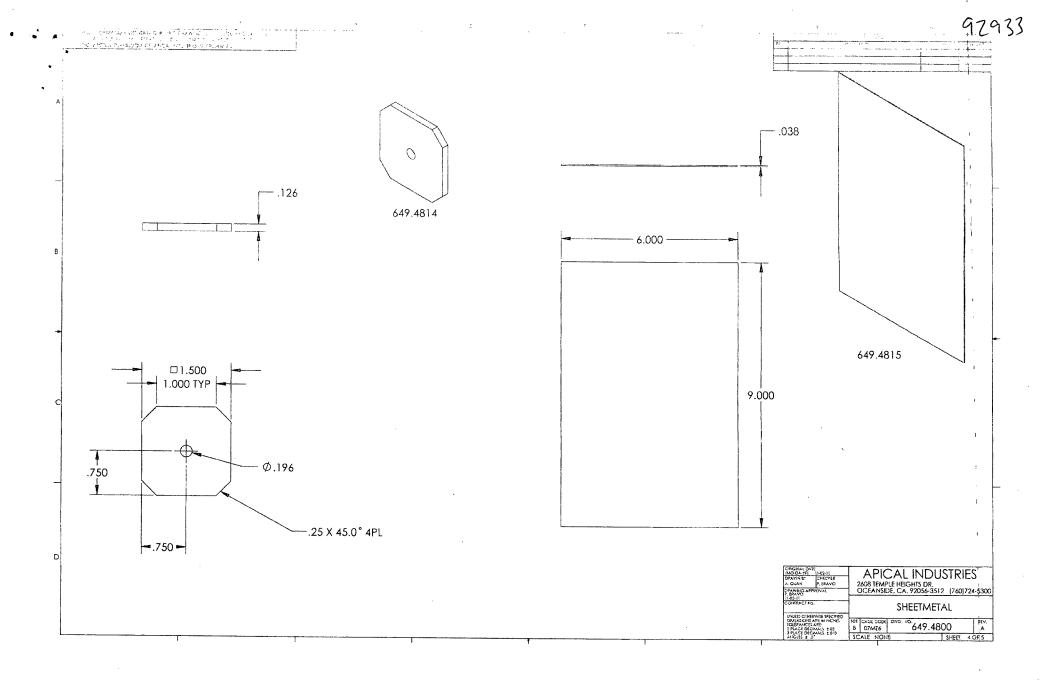
Wave/Twist in Tube

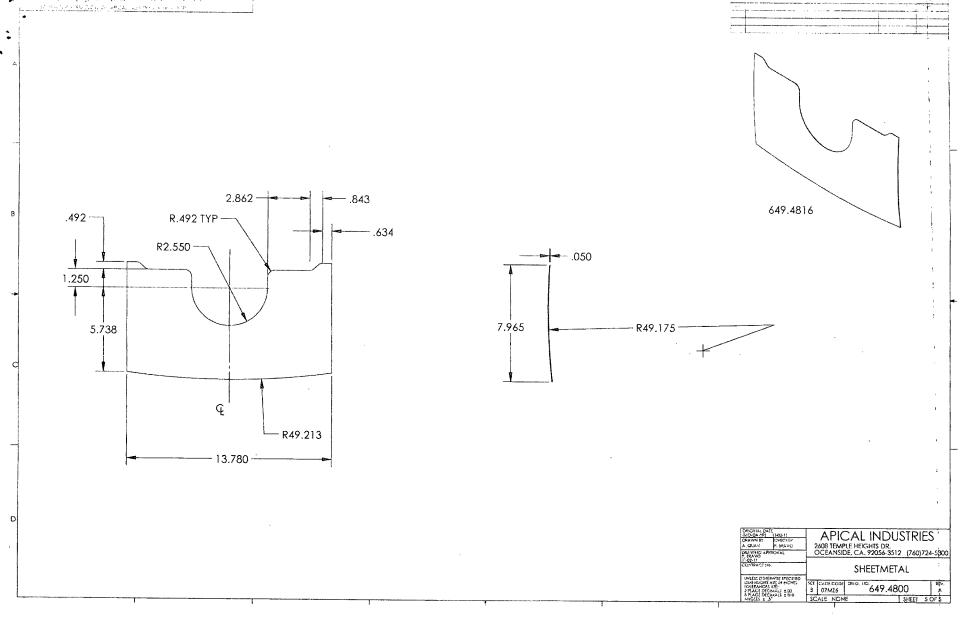
Folio











DART AEROSPACE LTD	Work Order:	<i>P</i> 63
Description: Double 10	Part Number:	644-4816
Inspection Dwg: (4.9 -44) (Rev: A		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	olerance Actual Dimension		Reject	Method of Inspection	Comments
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Audited by:	25 89			
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		Date:	 	